NATIONAL CLIMATE ASSESSMENT: THE BIG PICTURE

The National Climate Assessment is the most comprehensive report on climate change impacts in the United States. Here are a few things we learned from the assessment about impacts across the country.

Climate Change in the United States

- Here's what the report concludes: **"Climate change is already affecting the American people."** It's not just a prediction for the future. Climate change is happening now.
- What's causing climate change today? Primarily, it's man-made carbon pollution from dirty fossil fuels like coal, oil, and gas.
- Extreme weather is on the rise, including heat waves, heavy downpours, and in some regions, floods and droughts. There's increasing evidence that many of these events are linked to man-made climate change.
- Climate change threatens our health and well-being; our vital economic infrastructure; our crops and livestock; and the security of our water supply. But the severity of climate change in future decades will depend on the choices we make today.

Heat

- The United States has warmed between 1.3 and 1.9 degrees Fahrenheit since 1895, with much of this warming occurring in the last several decades.
- If carbon pollution continues to go up, average temperatures across much of the country could increase up to 8 degrees Fahrenheit by the year 2100. This would be a dramatic change, with impacts that are wide-ranging and harmful.
- Heat waves are getting more common, longer, and more intense. The widespread and prolonged extreme heat of 2011 and 2012 was unprecedented in the last 130 years.
- Hospital admissions and death rates soared after recent heat waves in many American cities, including St. Louis, Cincinnati, and Chicago.
- Extreme heat already impacts our ability to move around the country. Roads deteriorate more quickly, railway tracks buckle, and flights can be delayed or cancelled.

Floods and Droughts

- Very heavy rainstorms and snowstorms are getting more intense in most parts of the country. The largest increases in the amount of heavy precipitation have been in the Midwest (a 37 percent increase since 1958) and the Northeast (a 71 percent increase).
- Flooding has increased in many parts of the Great Plains, Midwest, and Northeast.
- Widespread drought may become more common over much of the central and southwestern United States.

- In some areas, the combination of drought and heat is making the wildfire season earlier, longer, and more severe.

Sea Level Rise

- Two feet of sea level rise — which could happen by 2050 — could put more than 5,790 square miles underwater in America. (That's bigger than the state of Connecticut … and bigger than nine cities the size of Houston put together.) New Orleans, Miami, and Virginia Beach are some of the most vulnerable cities in the nation.
- Long before permanent flooding happens, sea level rise makes us more vulnerable to storm surges and extreme weather. During Superstorm Sandy, nearly 14 feet of surge flooded all three New York City-area airports and much of Manhattan's subway system.
- Hurricanes and other extreme storms like Sandy are expected to get stronger as the climate changes.

Permafrost and Sea Ice

- Much of Alaska is covered by frozen ground called permafrost. As permafrost thaws, the cost of replacing worn-out pipelines, roads, and other infrastructure could increase up to $6 billion by 2030.

What Can We Do?

- Our climate is already changing, and we need to come together to plan and prepare — from the national down to the local level. *How much* the climate changes in the future is up to us.
- The sooner and the more boldly we act, the better we can protect our climate for generations to come. We can power our communities with clean, renewable energy, using technology like wind, solar, geothermal, and energy-efficient buildings and vehicles.